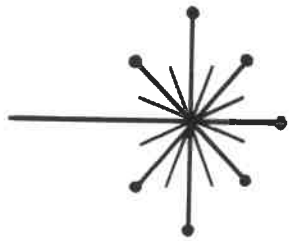


DIXIE-NARCO SERVICE MANUAL



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DIXIE-NARCO INC.
MARQUIS INSTRUCTIONS

Receiving & Inspection

Remove cabinet from carton and make a thorough visual inspection for any signs of damage which might have occurred during transit. If any damage is found, show it to the carrier at once. Dixie-Narco, Inc. is not liable for any damage in transit.

Installation

1. In operating condition the dispenser weighs approximately 235 lbs. Note: Make sure the counter is capable of supporting this weight.
2. The refrigeration unit and hood are set so the air is drawn in the front grille and discharged out the top. Make certain there is a minimum of 14 inches of free space so air can flow freely and the hood can be removed. Never block grille with any object since this will restrict the air flow.
3. Locate dispenser on counter. Connections to inlet fittings will be made at fitting located behind splash panel. Lines may be run up around the front edge of counter when drip tray projects forward from the counter. If dispenser is located so drip tray is on the counter, lines may be run out back access opening or up through hole provided in counter top.
4. Remove two screws on each side of hood and lift hood off.
5. As shipped the dispenser is a self-contained unit with all five (5) valves set up for carbonated water. The carbonated water line is marked CW and feeds valves #1,2,4,&5. The plain water line is marked PW and feeds valve #3. If desired, the #3 valve can be used to dispense a plain water drink. To do so, remove the braided line which runs from the stainless steel inlet marked PW to the tee on the carbonator. Remove the stainless cap nut from the pump outlet and place the cap nut on the tee where the braided line was just removed from the carbonator. Using the 8" braided line shipped with the unit, connect the stainless steel inlet marked PW to the pump outlet where the stainless cap nut was removed.
6. Remove the four (4) screws from the front of the splash panel. Push plastic overflow tube from the hole in splash panel and remove splash panel.
7. A 3/8" incoming water line should now be run from the water supply to the water inlet valve located on the front of the unit. Turn on the water inlet valve and also turn on the valve which is located on the inlet side of the pump. This will allow the water bath to fill up. The water bath will fill up in approximately ten minutes and will take ten gallons of water to fill the water bath. There is a clear vinyl tube on the front of the unit which will show the water level. When the water bath is full, water will expell out the overflow tube attached to the top of the tank. After water bath is filled, plug the power cord into a properly grounded 15 amp outlet. Turn on toggle switch which is located on the unit base. The compressor, condenser fan motor, and agitator motor will run. Full ice bank will be formed in approximately 4 3/4 hours. DO NOT PLUG IN CARBONATOR AT THIS TIME.
8. While the unit is pulling down, gas lines and syrup lines can be made up using the 100 ft. coil of .265 I.D. braided tubing, swivel nuts (7/16-20), swivel hose stems, and ferrules furnished in the installation kit. Enough sets of these fittings are furnished in kit to connect with 1/4" male flares (7/16-20) at dispenser inlets, CO₂ Regulators, and gas and syrup quick disconnects. Mark both ends of syrup lines and route to dispenser. Dispenser syrup lines are marked 1,2,3,4,&5. #1 syrup line feeds valve #1 on right side facing unit.

Connect Inlet Lines to Source

1. Pull relief valve on top of carbonator tank until water appears.
2. Turn on CO₂ supply to carbonator. Open dispenser valves 1,2,4,&5 until all plain water is bled from system and CO₂ gas comes out valve. Open valves #3 to fill line with plain water.
3. Plug in carbonator at junction block. Carbonator will run and cycle off.
4. Operate valves to obtain smooth flow of carbonated water. Check for leaks.
5. Connect CO₂ gas lines to syrup tanks.
6. Connect other end of syrup line to syrup tanks. Check for leaks.
7. Brix each valve.
8. Replace splash panel. Insert overflow tube through hole in splash panel. Fasten two bottom screws first, then two top screws.

To Pull Refrigeration System

1. Remove 1/4-20 nut and washer from each side of refrigeration deck.
2. Turn toggle switch located on side of base to the "OFF" position.
3. Disconnect the two-way plug from the transformer and the jumper wire from the shut off switch located on the front of the unit under the splash panel. Unplug power lead from junction block.
4. Shut off water valve on the inlet water line and disconnect from pump inlet. Disconnect the water lines from the stainless steel inlets marked PW and CW. Disconnect the gas line to the carbonator.
5. Lift entire refrigeration unit straight up and out of dispenser.

CLEANING AND SANITIZING INSTRUCTIONS

REQUIRED EQUIPMENT:

1. Four pressure containers, one containing mild cleaning solution (1 lb. baking soda to 5 gallons water), one containing chlorine solution (2 oz. clorox to 5 gallons water); one containing clean drinking water, and one empty.
2. Mild soap.
3. Clean cloth towels.
4. Bucket.

DAILY PROCEDURE:

1. Using damp cloth, wipe all exposed surfaces of dispenser.
2. Using damp cloth, wipe grid and drain pan clean.
3. Remove valve nozzels and wash in mild soap solution. Rinse with clean drinking water. Replace.

MONTHLY PROCEDURE: FLUSHING

1. Disconnect all syrup lines from syrup tanks.
2. Connect tank of drinking water to syrup line and pressurize tank with CO₂.
3. Flush syrup from all lines by operating dispensing valve. Catch waste in a rectangular bucket held against panel face. Flush until all syrup is removed.

CLEANING & SANITIZING

1. Connect pressure container containing mild cleaning solution (1 lb. baking soda to 5 gallons water) to each syrup inlet line in turn and flush through line and system until cleaning solution appears at valve. Allow to stand in system for five minutes. Replace with more solution and allow to stand another five minutes.
2. Connect clean empty container to gas pressure and each syrup line in turn and force cleaning solution out of system.
3. Remove valve nozzels and clean in mild soap solution. Use valve brush to scrub internal and external surfaces of nozzel. Rinse in drinking water and replace on valve.
4. Connect pressure container containing solution (2 oz. clorox to 5 gallons of water) to each syrup inlet line in turn. Operate valves until chlorine solution appears. Draw five cups from valve then allow to stand in system for five minutes.
5. Force chlorine solution out of each syrup line as in step 2 above.
6. Connect tank containing clean drinking water to gas pressure and connect to each syrup line in turn. Flush each line thoroughly to remove chlorine solution.
7. Force water out of each syrup line as in step 2 above.
8. Clean external surfaces of syrup quick disconnects with mild cleaning solution, rinse in chlorine solution and rinse with drinking water.
9. Connect proper syrup line to proper syrup container and fill system with syrup.

—WARRANTY—

Dixie-Narco warrants to the original purchaser of a Dixie-Narco unit all parts thereof (except light bulbs, or finish) to be free from defects in material and workmanship, under normal use and service for a period of 15 months from the date of shipment of the unit from either our plant or warehouse.

The term "original purchaser" as used in this warranty shall be deemed to mean that person, firm, association, or corporation to which the machine was sold originally.

Dixie-Narco's obligation under this warranty is limited to repairing or replacing without charge any part which upon our examination and to our satisfaction was defective in material or in workmanship and which failed under normal operating conditions and service.

The hermetically sealed refrigeration system, consisting of the motor compressor, condenser, evaporator and the refrigerant tubing is warranted for a total period of five (5) years and three (3) months from date of shipment.

The five year warranty does not apply to any electrical controls, valves, relays, fan or agitator motors, overload switches, starting relays, temperature controls, regulators, carbonators, pumps, wiring harnesses, cabinet or finish. Dixie-Narco's obligation under this warranty on the sealed refrigeration system referred to above is limited to repairing and returning or replacing at Dixie-Narco's option any unit with a similar unit when upon examination and to our satisfaction it was determined to have been defective. If our examination reveals that the unit is inoperative because of a defective accessory, both cost of repairs and freight charges will be paid by the customer.

Dixie-Narco will pay transportation charges under this warranty on all parts replaced or repaired when transportation has been made in the most economical way. If special handling or special transportation is used or requested, the charges will be paid by the customer.

This warranty only applies to units located within the United States and when operated in normal conditions and with electrical power supplies of 110/120 volts, 60 cycle. Further, the warranty is voided when a unit or any part has been subject to misuse, neglect, alteration without proper authorization, accident, or damage caused by transportation, flood, civil disorder, fire or the Acts of God.

"Return Material Tags" indicating model number of unit, serial number, and explanation of defect, must accompany all returned parts or units. "Return Material Tags" will be furnished upon request.

ORDERING PROCEDURE DISPENSING & REFRIGERATION PARTS

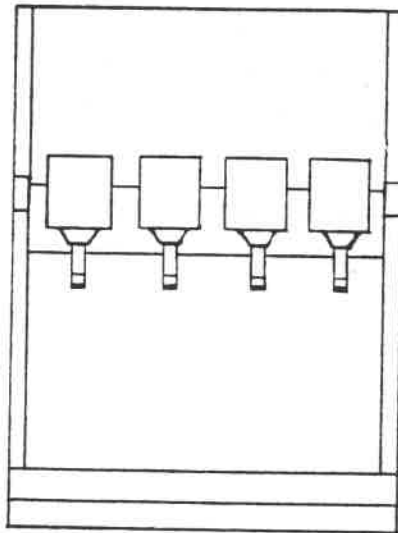
Order all dispensing and refrigeration parts from Service Department, Dixie-Narco, Inc. Ranson, West Virginia.

All parts and replacement refrigeration systems will be shipped F.O.B. Ranson, West Virginia.

To avoid delay of credit issuance, when due, furnish the Dixie-Narco cabinet serial number and the original date of installation along with all other information requested on the Dixie-Narco return material tag. Return Material Tags will be furnished upon request.

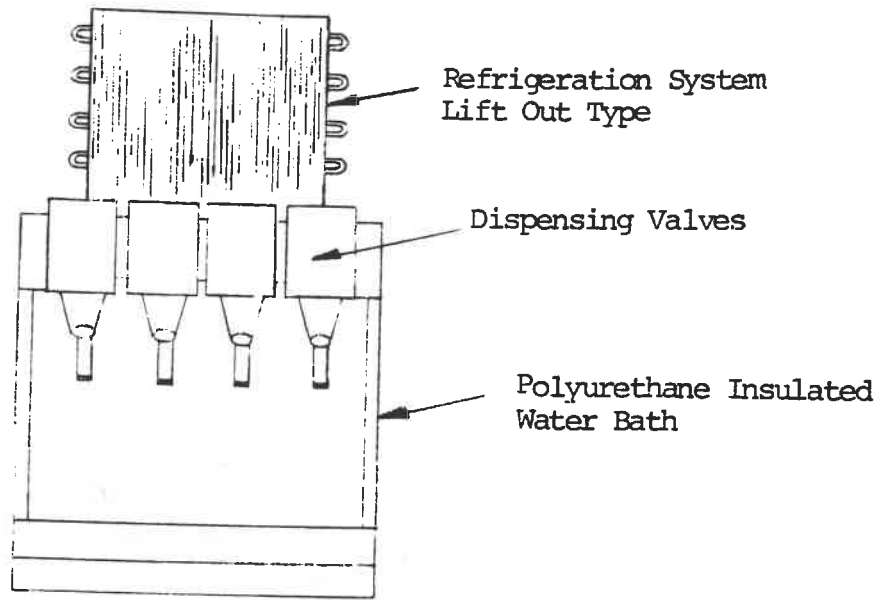
DIXIE-NARCO

DISPENSER
TITLE PAGE



HEIGHT - 25 1/2"
WIDTH - 15"
DEPTH - 24 5/8"
SHIPPING WEIGHT - 130 lbs.

COOLER - DISPENSER



WHAT TO DO WHEN YOU GET A NEW DISPENSER
SET IT UP

RECEIVING & INSPECTION Remove cabinet from carton and make a thorough visual inspection for any signs of damage which might have occurred during transit. If any damage is found, show it to the carrier at once. Dixie-Narco, Inc. is not liable for any damage in transit.

1. Remove two screws from each side of refrigeration hood (at center trim) and lift hood off. Inspect refrigeration lines and check condenser fan for free rotation.
2. Refrigeration evaporator and cooling coils may be inspected and tank checked for cleanliness as follows:
 - A. Remove nut and washer from each side of refrigeration deck.
 - B. Disconnect valve harness and lock switch wire.
 - C. Lift entire refrigeration unit straight up and out of dispenser.
 - D. Check agitator motor shaft for free rotation.
3. To gain access to cooling inlet connections:
 - A. Lift out drain pan grid.
 - B. Remove splash panel by lifting up until bottom clears drain tray lip, then pull out and down.
 - C. Lift out drain tray.

INSTALLATION

1. In operating condition the dispenser weighs approximately 195 lbs.
NOTE: Make sure the counter is capable of supporting this weight.
2. As shipped*, the refrigeration unit and hood are set so that air is drawn in front grille and discharged out top. Make certain that there is a minimum of 6 inches of free space so that air can flow freely and hood can be removed. NEVER block grilles with any objects since this will restrict the air flow.

*If desired the hood and refrigeration unit may be rotated 180° so that air is drawn back and discharged out top. Always make sure that intake grille is at condenser end of unit.
3. Locate dispenser on counter. Connections to inlet fittings will be made at fittings located behind splash panel. Lines may be run up around the front edge of counter when drip tray projects forward from the counter. If dispenser is located so that drip tray is on the counter, lines may be run out back access opening or up through hole provided in the counter top.
4. Replace refrigeration unit in dispenser. Take care not to damage evaporator or impeller. Replace hold down washers and nuts. Connect valve and lock switch harness.
5. Locate water fill hole plug in refrigeration deck. Remove plug and fill with clean water until water comes out overflow tube. (Approximately 10 gallons)

6. Run power cord down front of unit behind splash panel. Replace hood and secure with screws. Plug power cord into properly grounded 15 amp outlet. Compressor, condenser fan motor, and agitator motor will run. Full ice bank will be formed in approximately 4 3/4 hours.
7. Make up gas, carbonated water, plain water, and syrup lines to the proper length using the 100 ft. coil of .265 I.D. braided tubing, swivel nuts 7/16-20, swivel hose stems, and ferrules furnished in Installation Kit. Enough sets of these fittings are furnished in kit to connect with 1/4" male flares (7/16-20) at dispenser inlets, CO₂ Regulators, gas and syrup quick disconnects, carbonated water outlet at carbonator, and gas inlet to carbonator. A 3/8 female flare x 1/4 male flare brass reducer is furnished in kit for plain water line connection at tee located at carbonator pump outlet.
8. Mark both ends of carbonated water, plain water, and syrup lines and route to dispenser. Lines should always be flushed to make sure they are clean. Dispenser syrup lines are marked 1, 2, 3, 4, & 5. Carbonated water line is marked CW and plain water lines marked PW. #1 syrup line feeds valve #1 on right facing unit. Carbonated water line feeds valve 1, 2, 4, & 5. Plain water line feeds valve #3.

CONNECT INLET LINES TO SOURCE

1. Connect other end of carbonated water and plain water lines to carbonator and plain water supply.
2. Read your carbonator installation instructions. Turn on water supply. Pull on relief valve on top of carbonator tank until water appears.
3. Turn on CO₂ supply to carbonator. Open dispenser valves 1, 2, 4, & 5 until all plain water is bled from system and CO₂ gas comes out valve. Open valve #3 to fill line with plain water.
4. Turn on carbonator. Carbonator will run and cycle off.
5. Operate valves to obtain smooth flow of carbonated water. Check for leaks.
6. Connect CO₂ gas lines to syrup tanks.
7. Connect other end of syrup lines to syrup tanks. Check for leaks.
8. ~~Brize~~ each valve.
9. Replace splash panel and cup grid.

NOTE:

As mentioned above, valves 1, 2, 4, & 5 are for carbonated drinks as dispenser is shipped and #3 valve is fed by separate plain water cooling coil. If all 5 valves are to be used for carbonated drinks, the plain water line inlet to dispenser may be tied into the carbonated water line to feed valve #3 with carbonated water. A stainless steel barbed stem tee is furnished in kit along with three ferrules for this purpose.

CLEANING AND SANITIZING INSTRUCTIONS

REQUIRED EQUIPMENT:

1. Four pressure containers, one containing mild cleaning solution (1 lb. baking soda to 5 gallons water), one containing chlorine solution (2 oz. clorox to 5 gallons water), one containing clean drinking water, and one empty.
2. Mild soap.
3. Clean cloth towels.
4. Bucket.

DAILY PROCEDURE:

1. Using damp cloth, wipe all exposed surfaces of dispenser.
2. Using damp cloth, wipe grid and drain pan clean.
3. Remove valve nozzels and wash in mild soap solution. Rinse with clean drinking water. Replace.

MONTHLY PROCEDURE: FLUSHING

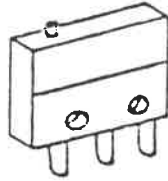
1. Disconnect all syrup lines from syrup tanks.
2. Connect tank of drinking water to syrup line and pressurize tank with CO₂.
3. Flush syrup from all lines by operating dispensing valve. Catch waste in a rectangular bucket held against panel face. Flush until all syrup is removed.

CLEANING & SANITIZING

1. Connect pressure container containing mild cleaning solution (1 lb. baking soda to 5 gallons water) to each syrup inlet line in turn and flush through line and system until cleaning solution appears at valve. Allow to stand in system for five minutes. Replace with more solution and allow to stand another five minutes.
2. Connect clean empty container to gas pressure and each syrup line in turn and force cleaning solution out of system.
3. Remove valve nozzels and clean in mild soap solution. Use valve brush to scrub internal and external surfaces of nozzel. Rinse in drinking water and replace on valve.
4. Connect pressure container containing solution (2 oz. clorox to 5 gallons of water) to each syrup inlet line in turn. Operate valves until chlorine solution appears. Draw five cups from valve then allow to stand in system for five minutes.
5. Force chlorine solution out of each syrup line as in step 2 above.
6. Connect tank containing clean drinking water to gas pressure and connect to each syrup line in turn. Flush each line thoroughly to remove chlorine solution.
7. Force water out of each syrup line as in step 2 above.
8. Clean external surfaces of syrup quick disconnects with mild cleaning solution, rinse in chlorine solution and rinse with drinking water.
9. Connect proper syrup line to proper syrup container and fill system with syrup.

HOW THE DISPENSER WORKS (cont.)
-ELECTRICAL PARTS- (cont.)

DISPENSING VALVE SWITCH



Dispensing Valve Switch

The dispensing valve switch is a single pole, double-throw switch located under the plastic valve cover.

The N.O. contact of the Dispensing Valve Switch is in the valve solenoid circuit. The N.O. contacts close and complete the circuit to water & syrup solenoids.

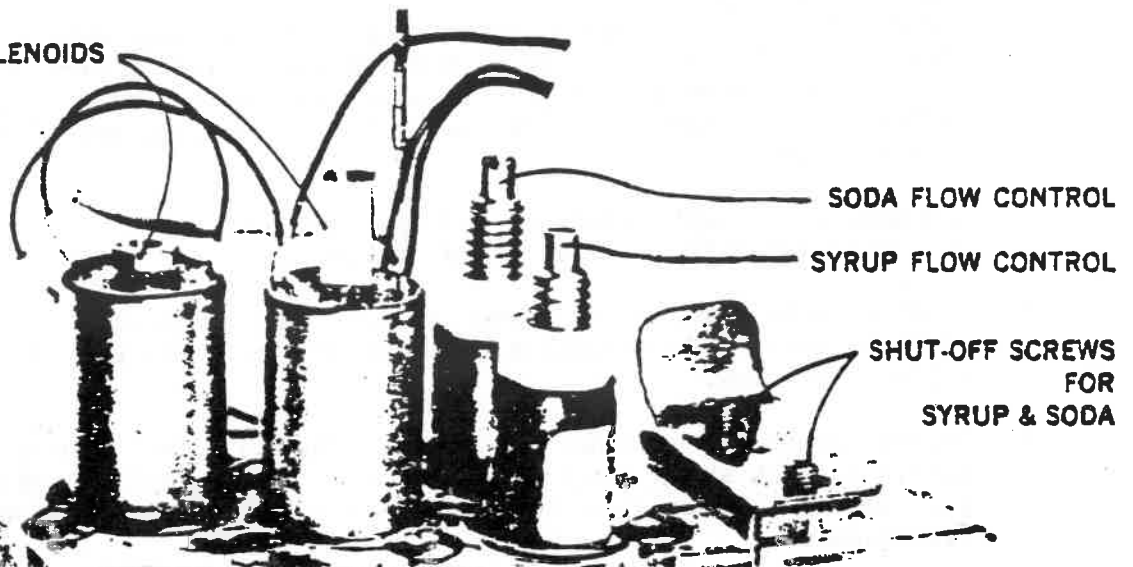
CARBONATED & PLAIN WATER SWITCHES

Valves #2 and #3 have an additional switch at front of valve under the cover. Mounting screws, plastic push tab, and decals are provided with unit. When mounted in place, pressing this switch will provide carbonated water from valve #2 and plain water from valve #3 (if this is being used as a plain water drink).

The N.O. contacts of this switch close and complete the circuit to the water solenoid. The N.C. contacts of this switch open and prevent power going to the syrup solenoid.

DISPENSING VALVE SOLENOIDS

24 VOLT SOLENOIDS



The Dispensing Valve 24-volt Solenoids are located on top of the Dispensing Valves. When the solenoids are turned "on" the right hand solenoid pulls the syrup plunger and the left hand solenoid pulls the water plunger to dispense a mixed drink.

When the valve lever is pushed the N.O. contact of the Dispensing Valve Switch close to complete the solenoid circuits.

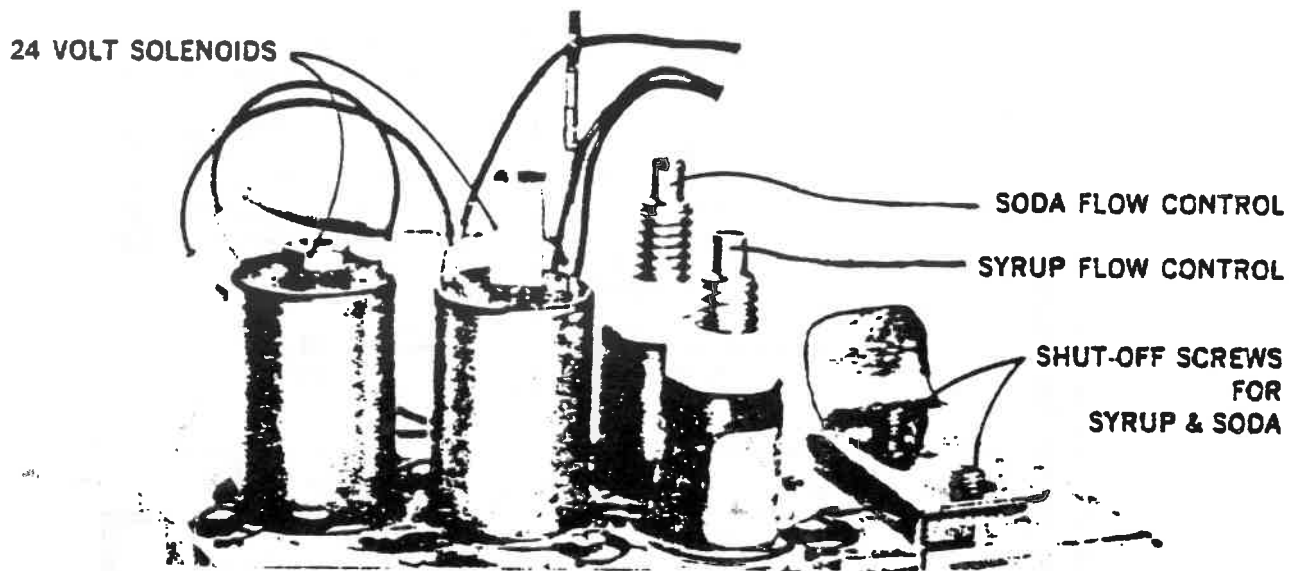
HOW TO TAKE CARE OF THE DISPENSER
THINGS TO ADJUST

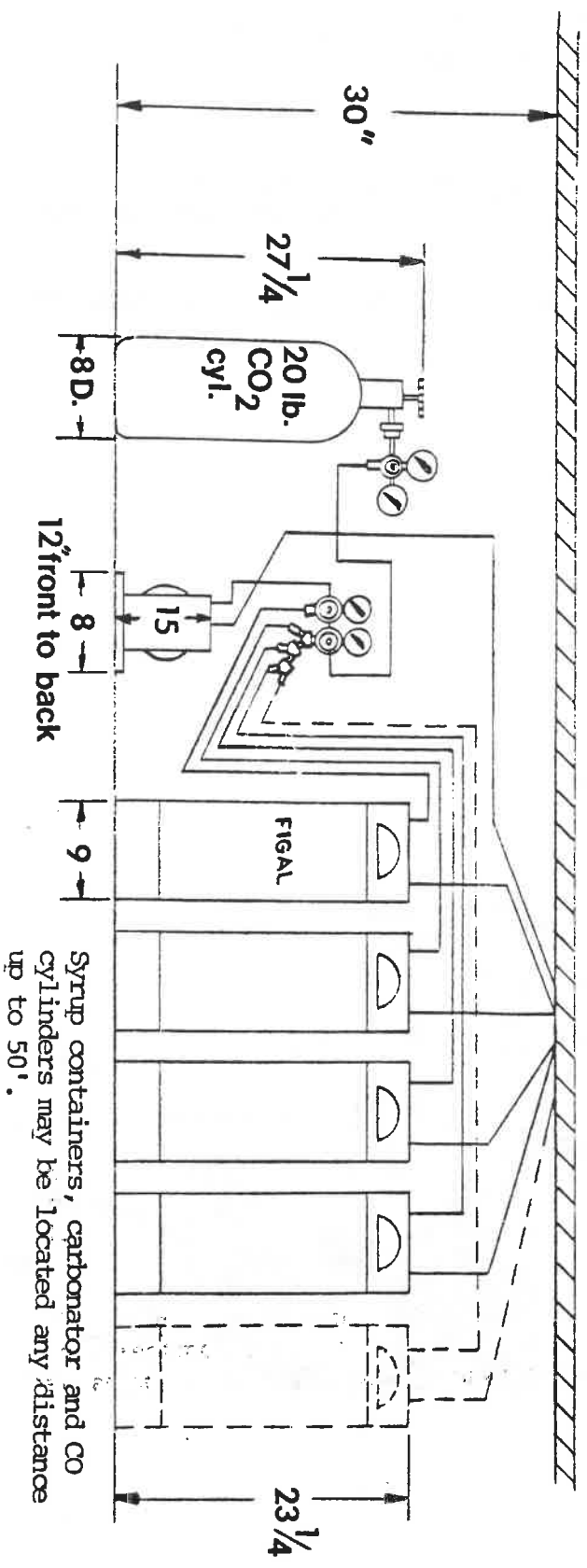
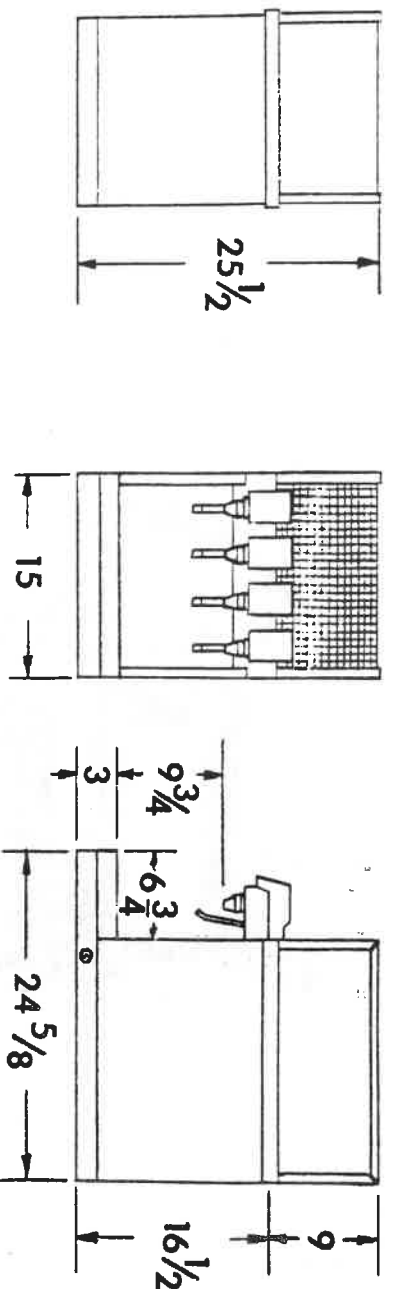
SYRUP FLOW CONTROLS

To obtain more flow, turn the slotted adjusting screw clockwise.
To obtain less flow, turn the slotted adjusting screw counter-clockwise.

NOTES

1. The Refrigeration Control is an "Ice Bank Control" and does not require any adjustments for altitude.





TYPICAL LINE HOOKUP

Syrup containers, carbonator and CO cylinders may be located any distance up to 50'.

HOW THE REFRIGERATION SYSTEM WORKS

MECHANICAL PARTS

COMPRESSOR MOTOR

The compressor motor (sealed in the compressor housing) drives the compressor with a shaft that is shared by both parts.

COMPRESSOR

The compressor (sealed in the compressor housing) pulls cold, low pressure freon gas from the evaporator and pumps hot, high pressure freon gas out to the condenser.

CONDENSER

The condenser, located on the refrigeration component base, takes heat out of the hot, high pressure gas that comes from the compressor. The gas loses heat as it goes through the condenser coils, and changed into a liquid because it is still under high pressure.

CONDENSER FAN

The condenser fan (between the condenser and motor compressor) first pulls air from the outside of the cooler through the condenser. This air takes heat from the condenser and then is blown over the compressor housing from which it also takes heat before going back outside of the cooler. The condenser fan runs when the motor compressor runs.

MOLECULAR STRAINER DRYER

The molecular strainer dryer is in the liquid line between the condenser and the capillary tube. This dryer traps and holds water molecules but lets oil molecules and freon molecules go through into the capillary tube.

CAPILLARY TUBE

The capillary tube (between the condenser and the evaporator in the refrigerant line) has a very small inside diameter, so the flow of the liquid freon from the condenser into the evaporator is slow, but steady, even with the pressure the compressor builds up in the condenser. This helps to keep pressure in the evaporator low.

EVAPORATOR

The evaporator (inside the cooling coil tank) takes heat from the cooling tank water and gives up this heat to the liquid refrigerant. The liquid refrigerant is evaporated (boiled off) as a gas, and the gas is pulled out by the compressor and so the pressure is kept low. An Ice Bank of a predetermined size is formed on the evaporator before the compressor shuts off.

WATER IMPELLER

The water impeller agitates the cooling water bath, driving the water down, over the evaporator ice bank and up through the cooling coils. This removes heat from the syrup & water coils. This action warms the bath water slightly and it is cooled again as it passes over the ice bank again.

HOW THE REFRIGERATION SYSTEM WORKS

ELECTRICAL PARTS

STARTING RELAY

The starting relay (in the terminal box on the side of the compressor shell) is electromagnetic relay whose contacts are closed by the magnetic field of the relay coil, and are opened by gravity. It is made up of a relay coil and one set of contacts. The relay coil is in the running circuit of the compressor motor. The relay contacts are in the compressor motor's starting circuit and can complete or break only that circuit. When the compressor motor and the condenser fan motor first start, the starting relay closes and completes the compressor motor starting winding circuit. After the compressor motor gets up the speed, the starting relay is opened by the force of gravity and the starting winding circuit is broken.

COMPRESSOR MOTOR

The compressor motor (sealed in the compressor housing) runs the compressor. It is started by the ice bank control switch, the starting relay and the thermal overload switch. It is stopped by the ice bank control switch, and, if it gets overloaded, by the thermal overload switch.

THERMAL OVERLOAD ASSEMBLY

The thermal overload assembly (in the terminal box on the side of the compressor shell) is the name of a part that is made up of a switch (the thermal overload switch) and a heating wire. The heating wire is in the compressor motor's running and starting circuits. The thermal overload switch can complete or break the compressor motor's starting circuit and running circuit. If the compressor motor gets too warm, or draws too much current (which will make the heating wire get hot) the heat makes the thermal overload switch open in the running and starting circuit of the compressor and break those circuits. When the thermal overload assembly, the motor and the compressor shell have all cooled enough to run safely, the thermal overload switch closes in these circuits and completes them.

CONDENSER FAN MOTOR

The condenser fan motor (between the condenser and the motor compressor) runs a small fan that pulls air through the condenser coils. It starts when the ice bank control switch closes and it stops when the ice bank control switch opens.

AGITATOR MOTOR

The agitator motor is located towards the center of the refrigeration deck in a vertical position. It has a 9" shaft that extends down into the cooling tank water bath. The water impeller is mounted at the end of the shaft and is driven by the agitator motor. The agitator motor runs continuously when the refrigeration unit is plugged in.

HOW TO TAKE CARE OF THE REFRIGERATION SYSTEM CORRECTING TROUBLES

When the refrigeration system is not working right, go to the table called "Correcting Common Refrigeration Troubles" on the next pages. Find your trouble, see what the possible causes are, and try the tests (in the center column); they will let you know when you have the true cause of the trouble. When you have found the cause of the trouble, either make the adjustments, repair the part or put a new part in, whatever the table says to do. This table does not list all of the possible causes of any of the troubles -- but it does have all of the common causes. If your vender has a trouble that is not shown on the chart, or the trouble is not the result of one of the causes shown on the chart, study the section on "How The Refrigeration System Works" and you will be able to find out what is wrong, and fix it.

TROUBLE

- The Compressor Will Not Run At All
- The Compressor Starts But Will Not Keep Running
- The Compressor Runs, But The Product Is NOT Cold Enough
- The Product is TOO Cold
- The Refrigeration Unit Is Noisy
- The Compressor Motor Never Stops Running

HOW TO CORRECT COMMON REFRIGERATION TROUBLES THE COMPRESSOR WILL NOT RUN AT ALL

A Possible Cause	To Make Sure	This Is What To Do
1. The dispenser is not plugged in.	Look, and if it isn't,	Plug the dispenser in.
2. The power is off.	Plug a 110 volt lamp into the outlet. If it doesn't light,	Have someone who knows how to, get power to the outlet.
3. Voltage.	Look at the nameplate on the dispenser to find out what voltage and cycle is required. Ask the local power company for assistance if necessary.	Correct voltage to meet requirements of dispenser.
4. A wire in the supply control cord is broken.	Put the prods of 110 volt test lamp on terminal 3 of the overload protector and L of the starting relay. Make sure ice bank control switch is closed, (look to see). If it doesn't light,	Put a new supply - control cord on.
5. The thermal overload switch is stuck open.	Unplug the dispenser for at least 15 minutes. Then plug the dispenser in, and put the prods of a 110 volt test lamp on thermal overload assembly terminal 1 & on terminal L of the starting relay. If the lamp doesn't light,	Put a new Thermal Overload assembly in.
6. The ice bank control bellows	Check the ice bank control switch. If there is no ice over the control bulb, and the switch is not closed,	Put a new ice bank control in.
7. The ice bank control switch contacts need cleaning.	Clean them and see if it helps.	Polish the faces of the contacts with fine paper. Clean with "Cobehn" cleaner.

HOW TO CORRECT COMMON REFRIGERATION TROUBLES THE COMPRESSOR START BUT WILL NOT KEEP RUNNING

A Possible Cause Is	To Make Sure	This Is What To Do
1. The thermal overload switch opens every time, or almost every time the compressor motor starts.	Wait till the compressor motor stops, then unplug the dispenser and open the ice bank control box to see if the ice bank control switch is closed. If it is,	Check the "Possible Causes" in the next 4 steps. If it is not, skip the next 4 steps and go to step 6 of this section.
2. The refrigerant tube from the compressor to the condenser is kinked or bent sharply.	Look, if it is, If this does not help and no other cause can be found for the trouble,	Try to get the kink out. Change out the system.
3. The capillary tube is kinked or bent sharply.	Look, if it is, If this does not help and no other cause can be found for the trouble,	Try to get the kink out. Change out the system.
4. The starting relay contacts are sticking closed.	Try a new relay.	
5. The voltage at the cooler is either too high or too low.	<p>1. When an extension is not used on the supply control cord: While the compressor is running, put one prod of a volt meter on terminal 3 of the thermal overload switch and other prod on terminal L of the starting relay. If the voltage is not between 105 volt and 126 volt,</p> <p>2. When an extension is used on the supply-control cord: Put a double socket on both ends of the extension and plug it into the outlet. While the compressor and pump motor are running, put the prods of a volt meter into one of the double socket, first at one end of the extension and then at the other end. If voltage is not between 105 volt and 126 volt, at the outlet ends,</p>	<p>Have the person in charge of the dispenser tell the power company or electrician so they can take care of it.</p> <p>Have the person in charge of the dispenser tell the power company or electrician so they can take care of it.</p>

HOW TO CORRECT COMMON REFRIGERATION TROUBLES

THE COMPRESSOR STARTS BUT WILL NOT KEEP RUNNING (cont.)

A Possible Cause	To Make Sure	This Is What To Do
	2. (cont'd.) When an extension is used on the supply-control cord: If the voltage is not between 105 volt and 126 volt at the supply plug end you may be getting voltage drop across extension if it is #18 or smaller wire, or a long run of # 14 wire. If so,	Tell the person in charge of the vender that the vender will not work right with that extension.
6. The thermal overload switch opens after the compressor has been running a short time, but before the ice bank control switch cuts the motor off.	Wait until the compressor motor stops, then unplug the vender and open the ice bank control box, to see if the ice bank control switch is closed. If it is,	Check the "Possible Causes" in the next 3.
7. Not enough air getting to the condenser.	See if there is anything around the outside of the cooler. If there is,	Take it away.
8. The condenser is dirty.	Look. Also feel the tubes from the compressor to the condenser. If the tube is very hot, or if you see dirt on the condenser.	Clean the condenser with either a vacuum cleaner, a brush or compressed air.
9. The condenser fan motor is burned out.	With the condenser fan motor leads correctly connected to the compressor motor terminals (See wiring diagram) See if the condenser fan runs when the compressor does. If it doesn't	Put a new condenser fan motor in.

HOW TO CORRECT COMMON REFRIGERATION TROUBLES

THE COMPRESSOR RUNS BUT THE PRODUCT IS NOT COLD ENOUGH

A Possible Cause Is	To Make Sure	This Is What To Do
1. Agitator Motor is not running	Check to see if it is not running, but is connected properly.	Put a new motor in.
2. Not enough water in the cooling coil tank	Check water level tube.	Fill the tank to the overflow tube with water.
3. The refrigerant tubing is kinked or bent sharply.	Look. If it is, If this does not help, and no other cause can be found for the trouble.	Try to get the kink out. Change out the system.
4. There isn't enough refrigerant in the refrigeration system or the capillary tube is partly plugged.	Let the cooler run at least one (1) hour. If the product is warm,	Change out the system.
5. The condenser isn't getting enough air	See if there is anything around the outside of the cooler to keep the air out. If there is,	Take it away.
6. The condenser is dirty	Look. Also, feel the tube from the compressor to the condenser. If the tube is very hot, or if you see dirt,	Clean the condenser with either a vacuum cleaner, a brush or compressed air.
7. The condenser fan motor is burned out	With the condenser fan motor leads directly connected to the compressor terminal, see if the condenser fan runs when the compressor does. If it doesn't,	Put a new condenser fan motor in.
8. The terminal overload switch is starting and stopping the compressor	Unplug the vender for at least 15 minutes, then plug it in again. Be sure the ice bank control switch is closed. If the compressor motor cuts off, then on, then off, while the ice bank control switch stays closed.	Check the "Possible Causes" in steps 9 & 10.
9. The voltage at the cooler is either too high or too low.	1. When an extension is not used on the supply-control cord: While the compressor running, put one prod of a volt meter on terminal 3 of the Thermal Overload and other prod on terminal L of starting relay. If the voltage is not between 105 volt and 126 volt.	Have the person in charge of the vender tell the power company or an electrician so they can take care of it.
	2. When an extension is used on the supply control cord: Put a double socket on both ends of the extension and plug it into the outlet. While the compressor and carbonator motor is running, put the prods of a volt meter into one of the other sides of the double socket.	Have the person in charge of the vender tell the power company or an electrician so they can take care of it.

HOW TO CORRECT COMMON REFRIGERATION TROUBLES

THE COMPRESSOR RUNS BUT THE PRODUCT IS NOT COLD ENOUGH (cont.)

A Possible Cause Is	To Make Sure	This Is What To Do
	first at one end of the extension and then at the other. If voltage is not between 105 volts and 126 volts,	
10. The starting relay contacts are sticking closed.	Try to "jar" the relay. If this works,	Put a new starting relay in.

THE PRODUCT IS TOO COLD

A Possible Cause Is	To Make Sure	This Is What To Do
1. The ice bank control bulb is not in the bulb clamp on the evaporator.	Look and see. If it isn't,	Put the bulb in its clamp.
2. The ice bank control switch is stuck closed.	See if ice is over the ice bank control bulb. If it is, but the switch is closed.	Put a new ice bank control in.

THE REFRIGERATION UNIT IS NOISY

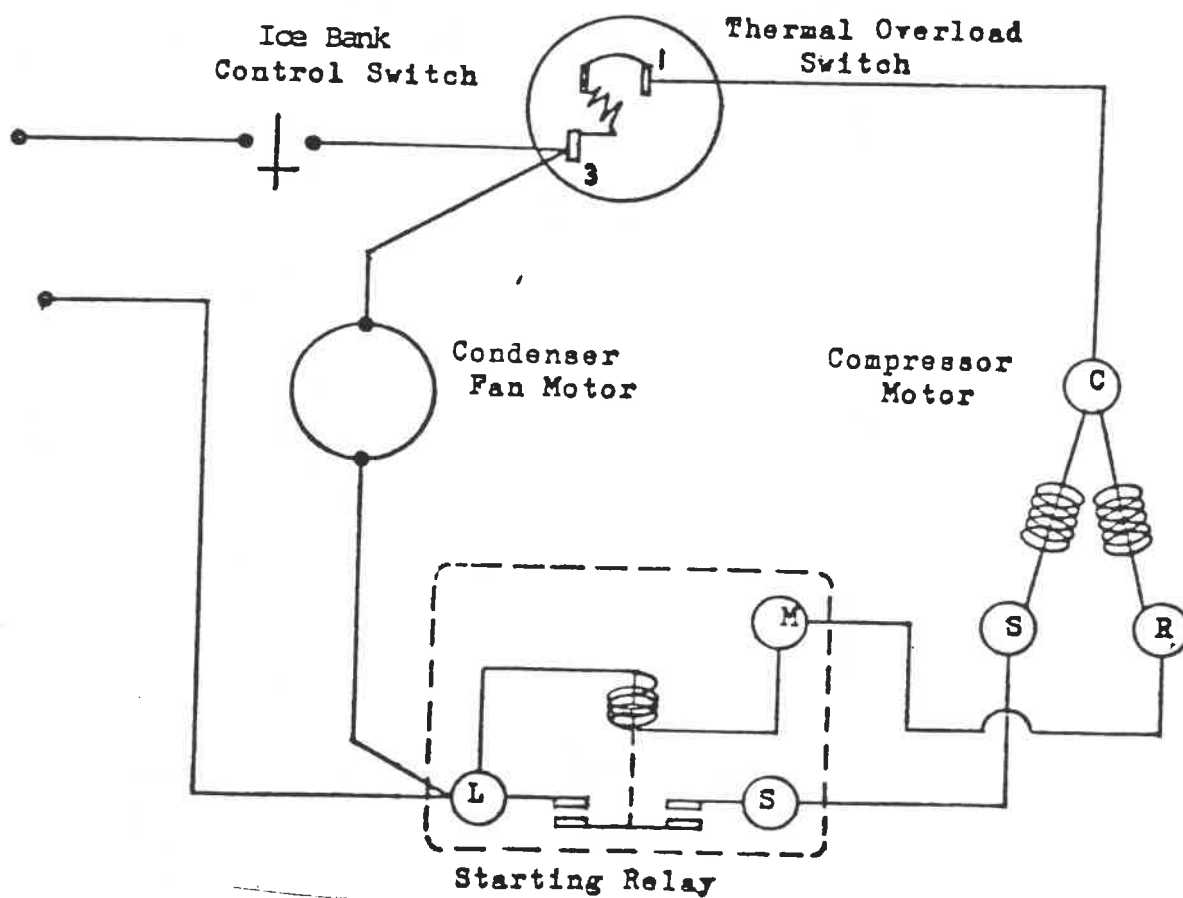
A Possible Cause Is	To Make Sure	This Is What To Do
1. The refrigerant lines rattle.	Hold them between your fingers. If the rattle stops,	Bend them gently away from whatever they are hitting.

THE COMPRESSOR MOTOR NEVER STOPS RUNNING

A Possible Cause Is	To Make Sure	This Is What To Do
1. The ice bank control switch is stuck closed.	See if ice is over the ice bank control bulb, if it is but the switch is closed,	Put a new ice bank control in.
2. The compressor has a broken valve or there is no refrigerant in the refrigeration system.	The tube from the compressor to the condenser is not warm and the evaporator is not cold.	Change out the system.

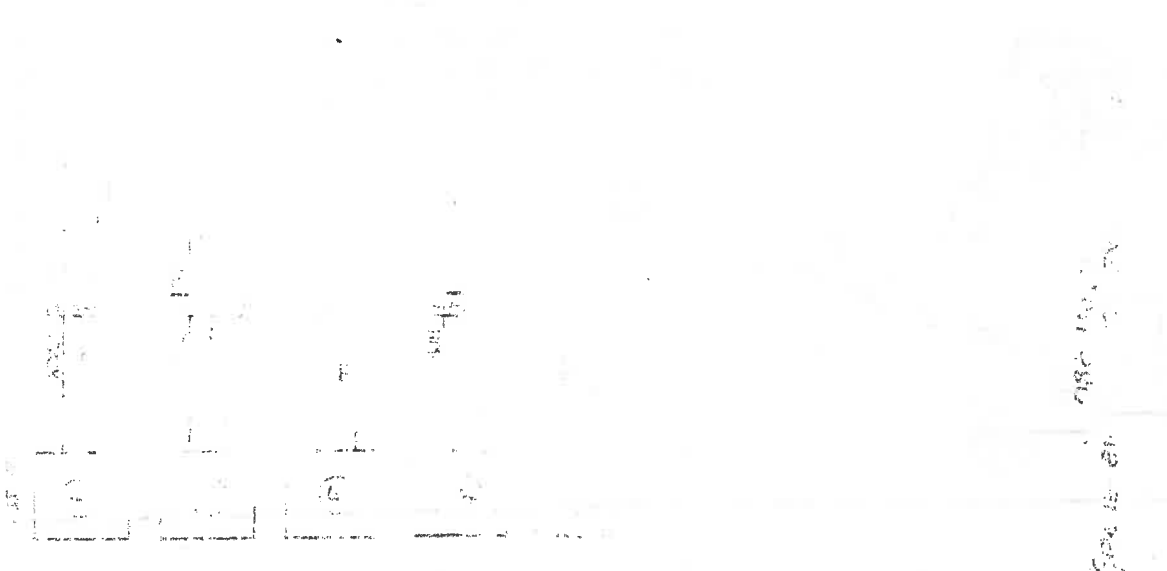
COMPRESSOR RELAY & OVERLOAD

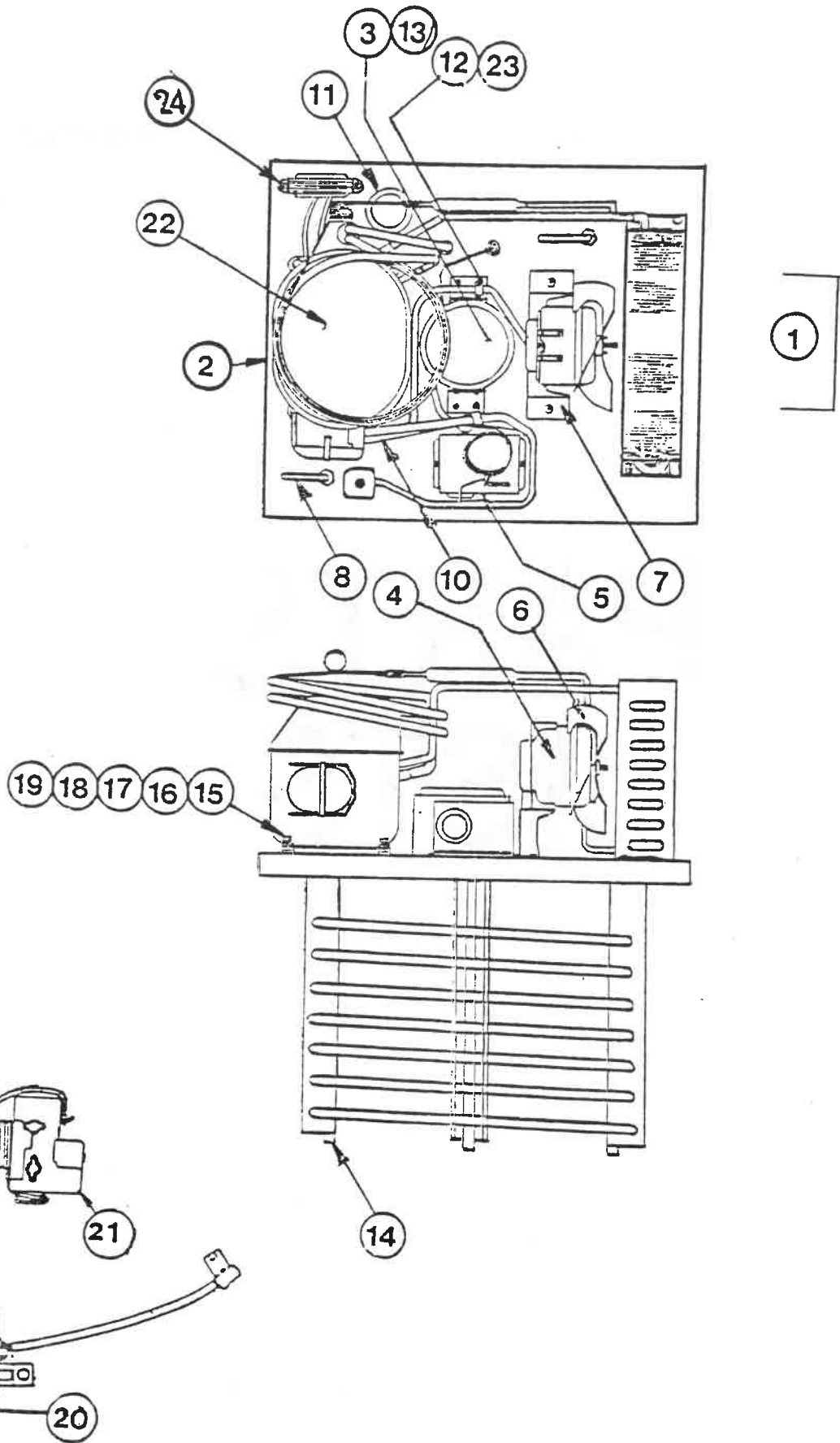
WIRING DIAGRAM



DIXIE-NARCO

PARTS LISTS





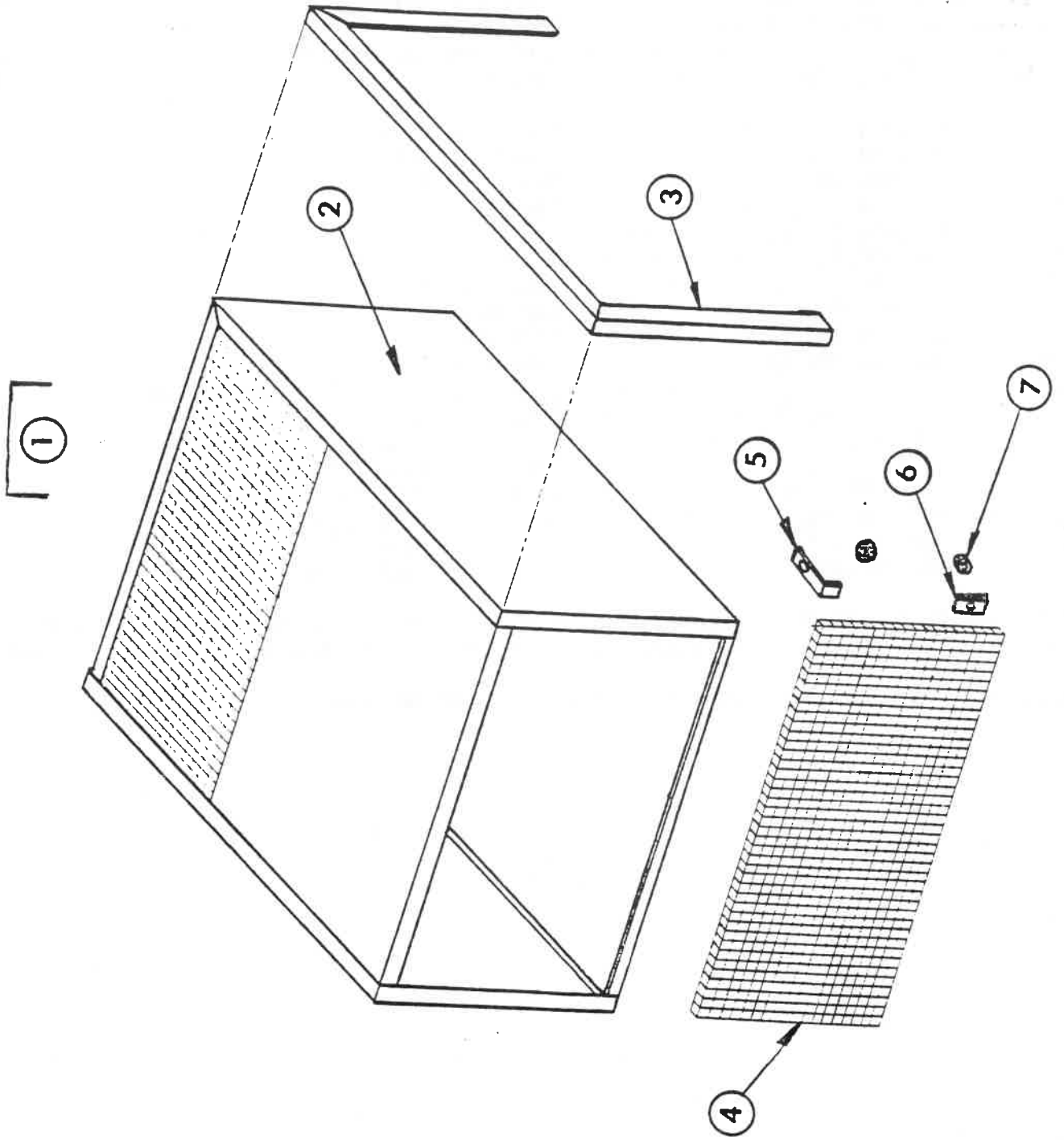
REFRIGERATION SYSTEM

ITEM

NO.	PART NUMBER	PART NAME AND DESCRIPTION
1	D228,040,000.03	Ass'y Refrigeration System
2	C228,060,100.03	Foam Assembly Lid
3	804,500,450.01	Agitator Motor
4	804,500,240.01	Condenser Fan Motor
5	802,800,360.01	Ice Bank Control
6	801,303,570.01	Fan Blade
7	901,301,750.01	Condenser Fan Bracket
8	801,401,240.01	Handles
9		
10	C804,901,630.01	Wiring Harness
11	900,901,900.01	Water Fill Plug
12	900,901,800.01	Cable Clamp
13	B801,804,100.01	Impellor
14	800,502,170.01	Leg
15	902,000,430.01	Grommet
16	905,300,040.01	Steel Sleeve
17	900,902,060.02	Cap Screw
18	903,000,460.02	Lockwasher
19	900,700,080.01	Flatwasher
20	83601	Overload For AE3417 A Compressor
21A	82636	Relay for AE3417 A Compressor
	*(SP-9660-040-155)	Relay for AE3417 A Compressor
21B	82428	Relay for AE3417 A Compressor
	*(GE-3ARR-12-PB24)	Relay for AE3417 A Compressor
22	802,500,080.01	Compressor Tec. AE3417A
23	900,600,230.02	S/M Screw #8 x 1/2
24	B228,020,600.23	Assembly Transformer

*Relative to Relays and Overload, the number that appears in parenthesis () are always stamped on the Relay and Overload. Either number can be used for ordering purposes.

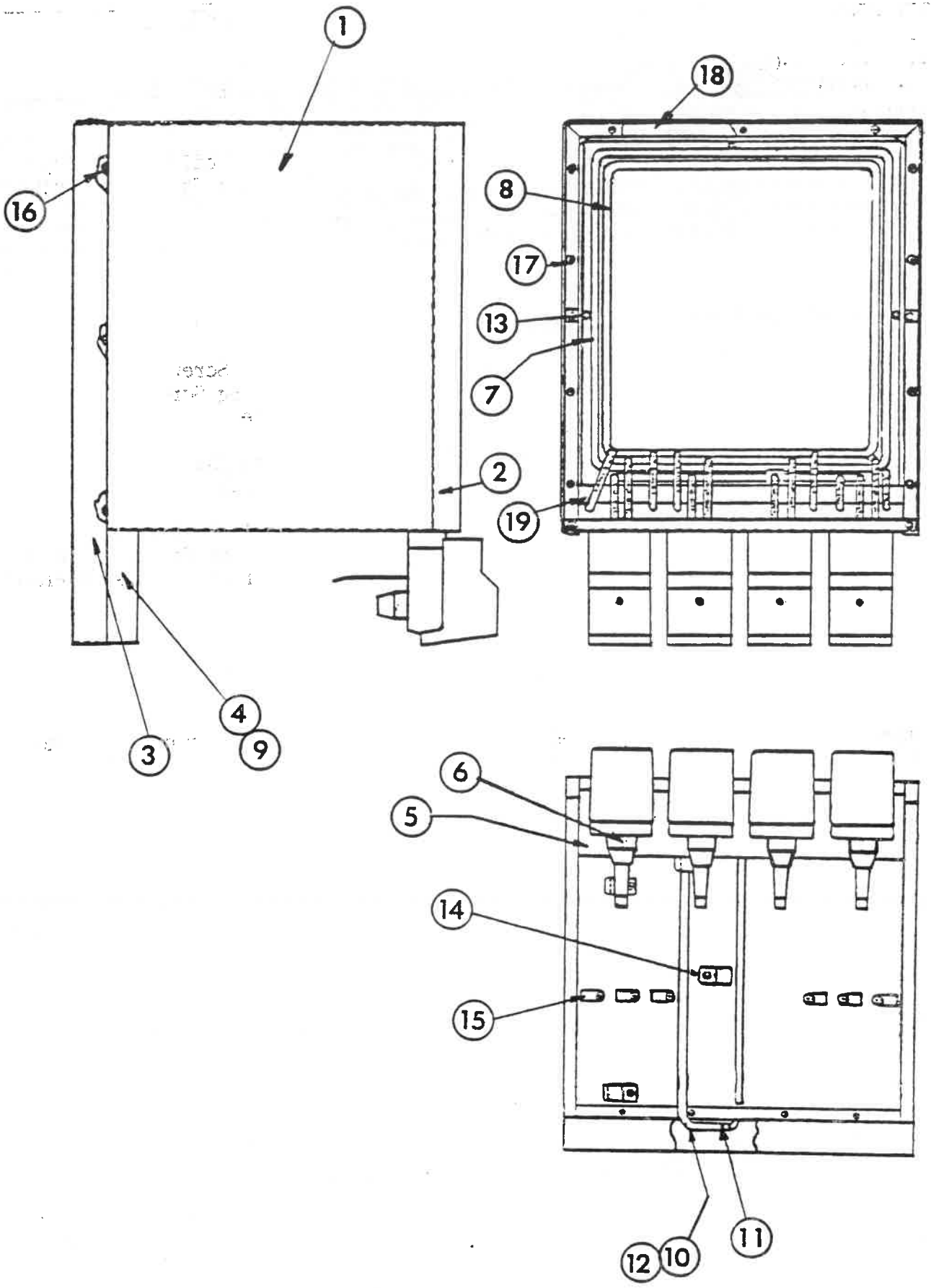
All parts and prices are subject to change without notice.



HOOD ASSEMBLY

ITEM NO.	PART NUMBER	PART NAME & DESCRIPTION
1.....	D228,050,000.03.....	Assembly Hood.....
2.....	C228,050,100.03.....	W/A Hood.....
3.....	B228,050,300.03.....	S/A Trim.....
4.....	801,804,250.01.....	Grille.....
5.....	A228,050,150.03.....	Front Grille Support.....
6.....	A228,050,110.03.....	Retainer Grille.....
7.....	900,800,500.01.....	Keps Nut.....

Prices are subject to change without notice.



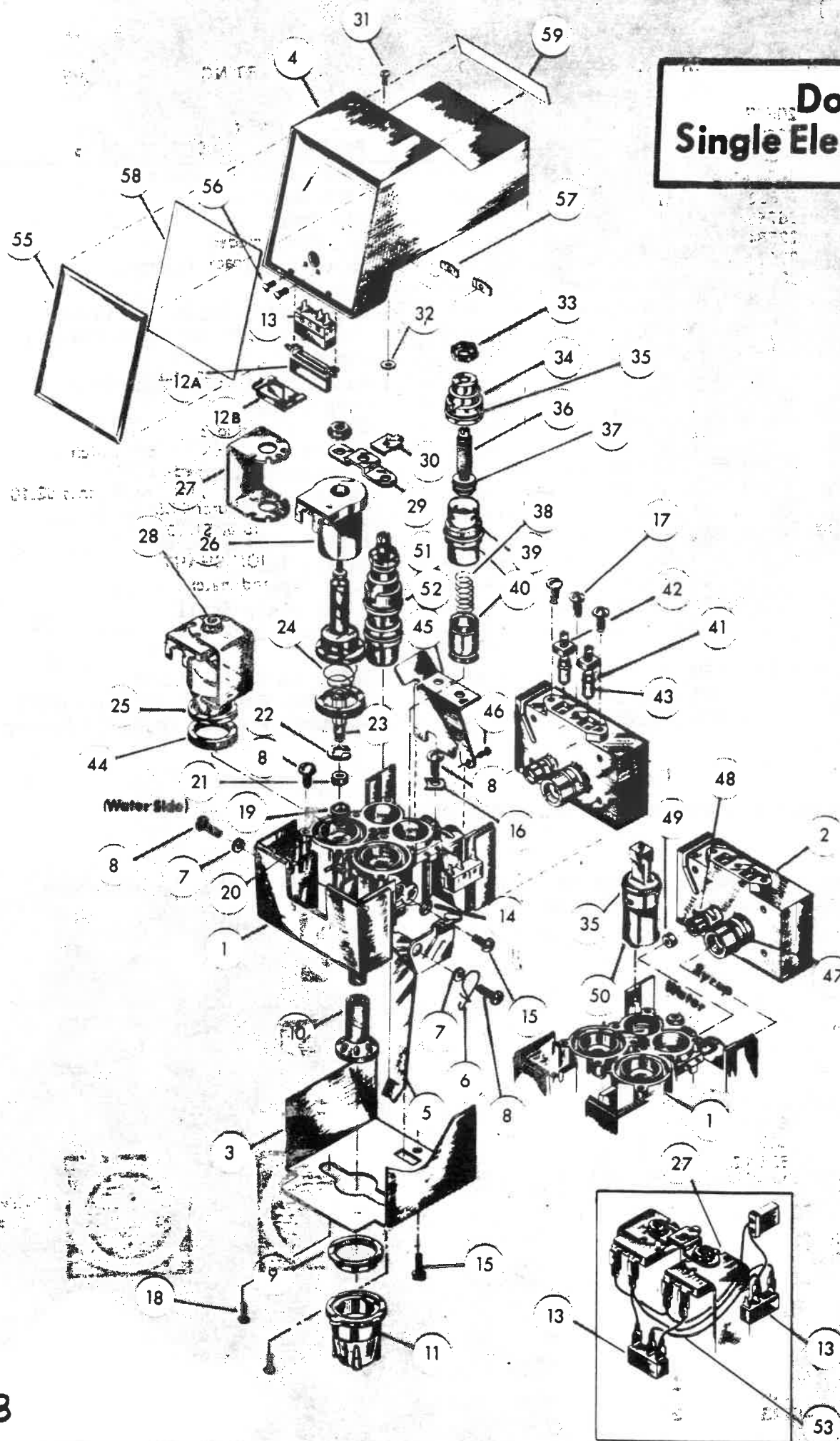
CUTLASS IV & CUTLASS V
DISPENSER ASSEMBLY

ITEM NO.	PART NUMBER	PART NAME & DESCRIPTION
1	D228,060,000.03	Foam Assembly Shell
2	C228,020,140.03	Trim Shell
3	C228,020,300.03	W/A Base
4	C228,050,200.03	W/A Drain Tray
*5	D228,050,010.03	Valve Panel (4 Flavor)
6	A264,050,020.03	S/A Valve
*7	D228,030,800.03	Ass'y Water Coils (4 Flavor)
*8	D228,030,900.03	Ass'y Product Coils (4 Flavor)
9	B801,401,230.01	Cup Grid
10	903,100,460.01	Water Level Hose (18" Lg.)
11	900,501,850.01	Hose Clamp
12	900,901,910.01	Cap
13	901,901,380.01	Spacer
14	900,901,960.01	Tinnerman Clamp
15	900,901,800.01	Cable Clamp
16	900,300,030.01	Sheet Metal Screw
17	900,301,500.01	Self-Drilling Screw
18	903,600,410.01	Gasket Tape
19	900,300,670.01	Foam Tape
20	C228,050,090.03	Front Plate-Shell
21	801,502,020.01	Electric Lock
*5	D264,050,010.03	Valve Panel (5 Flavor)
*7	D264,030,200.03	Assembly Water Coils (5 Flavor)
*8	D264,030,300.03	Assembly Product Coils (5 Flavor)

All parts and prices are subject to change without notice.

NOTE: When ordering item #6 (S/A Valve), customer should state whether he needs the single switch valve or the double switch valve.

Dole - Single Electric Valve



PARTS LIST

NO. DESCRIPTION & PART NO. QTY. PER VALVE

NO. DESCRIPTION & PART NO. QTY. PER VALVE

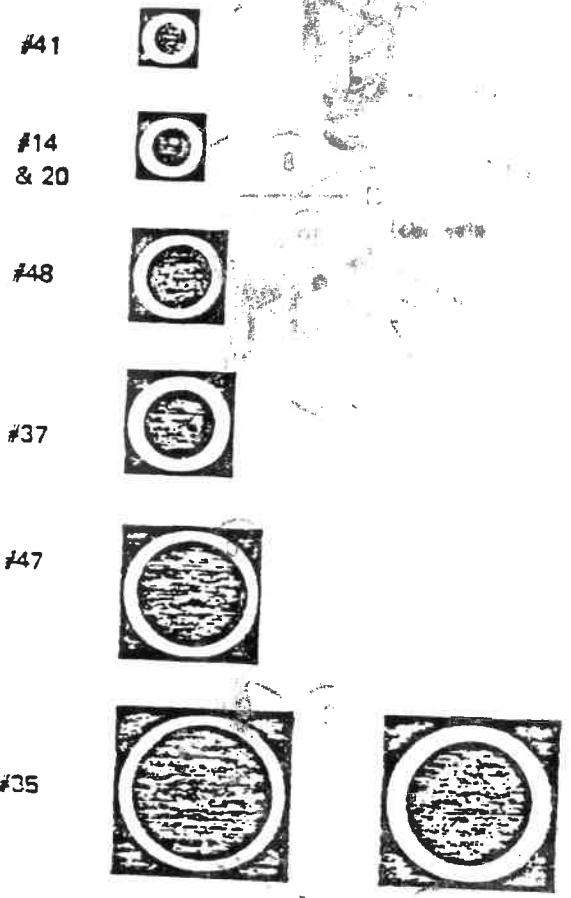
1.	Body	20623	1
2.	Mounting Plate	20622	1
	Bottom Plate	20631	1
4.	Top Cover	39510-1	1
5.	Lever	20632	1
6.	Spring	36758	1
7.	Bushing	22584	2
8.	Screw	22024	12
9.	Seal	33793	1
10.	Diffuser	20904	1
11.	Nozzle	22396	1
12.a	Button	39509-1	1
12.b	Insert	39512-1	1
13.	Switch	18054	1 or 2
14.	'O'-Ring	7793	2
15.	Screw	18050	5
16.	Hold Down Washer	22081	4
17.	Screw	22024	3
18.	Nozzle Retaining Screw	24124-2	2
19.a	Port-Syrup	18068	1
19.b	Port-Water	18061	1
20.	'O'-Ring	7793	3
21.a	Seat-Syrup Circuit	38916-1	1
21.b	Seat-Water Circuit	18071	1
22.	Retaining Ring	15321	2
23.	Armature	15323	2
24.	Spring	18367	2
25.	Guide Assy.	19695	2
26.	Coil	12931-22	2
27.	'C'-Frame	16779	2
	Locknut	15315	2
28.	Retaining Strip	23735	2
30.	Speed Nut	18561	1
31.	Screw	24890	1
32.	Fibre Washer	22266	1
33.	Locknut	20969	2
34.	Retainer	20626	2
35.	'O'-Ring	10133*	4
36.	Valve Stem	20628	2
37.	'O'-Ring	39392-3	2
38.	Compression Spring	20640	2
39.	Spool & Sleeve Assy. Syrup	22660	1
40.	Spool & Sleeve Assy. Water	23264	1
41.	'O'-Ring	39392-1	1
42.	Nut	19698	2
43.	Valve Stem Cut-Off	20633	2
44.	Gasket	18070	2
45.	Clamp	20627	1
46.	Screw	20641	1
47.	'O'-Ring	19303	1
48.	'O'-Ring	31525-12	1
49.	Water Flow Washer	34047	1
50.	Plug	20845	2
51.	Mechanical Syrup Control Assy. Kit	22367	1
52.	Mechanical Water Flow Control Assy. Kit	23060	1
53.	Wiring Harness Assy. w/Two Switches	21620	1
54.	Wiring Harness Assy. w/One Switch	22072	1
55.	Cover Lens	39511	1
56.	Screw	46714-1	2
57.	Speed Nut	46713	2

58-59.	Packet Labels (front & Rear)	39058-25	18
	Coca-Cola		82
	Orange		
	Root Beer		
	Sprite	included in one packet	
	Tab		
	Fresca		
	Grape		
	Mr. Pibb		
	Diet Mr. Pibb		
*35	O-Ring	39394-4	*2

- Note:
1. Items *53 & *54 includes coil
 2. 22070 Wire Harness (only) for one switch 1 (switch and coil not included) \$1.80
 3. 21610 Wire Harness only, for two switches \$2.10
 4. 38686 Adjustable Diffuser \$1.50
 5. 22395 Hi-Carb Diffuser \$1.10

O-RING IDENTIFICATION CHART

Place O-Ring on square and match outer & inner diameters



*Valves made Feb. 1975

